

Amendments to the Claims

Please cancel 22-35 without prejudice, add claims 37-38 and amend claims 1-15, 18 and 36 as follows:

1. (*Currently amended*) A method of operating a concatenated contact image-sensing module ~~Sscanner~~ to scan an object ~~wherein the concatenated contact image-sensing module Scanner includes a plurality of contact image sensors module (CIS), the method~~ comprising:

providing a first contact image sensor module for executing a first document reading session through ~~the~~ a trigger of a start pulse, and then the first contact image sensor module outputting a corresponding first scanned image signal;

providing a second contact image sensor module operatively connected to the first contact image sensor module for executing a second document reading session and then the second contact image sensor module outputting a corresponding second scanned image signal; ~~and~~

~~providing a third contact image sensor module operatively connected to the second contact image sensor module for executing a third document reading session and then the third contact image sensor module outputting a corresponding third scanned image signal;~~ wherein the first, ~~and~~ the second ~~and the third~~ scanned image signals are selected to be outputted sequentially via an interface to a computing device that executes a software module to integrate the first and the second scanned image signals to recover an image of the object.

2. The method of claim 1, further comprising ~~a step of~~ providing a first end pulse ~~and a second end pulse outputted from the first and the second contact image sensors module to the second and the third contact image sensor module, respectively, for triggering~~ an executions of the second ~~and third document reading sessions.~~

3. The method of claim 1, further comprising ~~a step of~~ providing an analog switch for receiving the first, ~~and~~ the second ~~and the third~~ scanned image signals, wherein the analog switch further includes an internal counter therein, ~~wherein the internal counter~~

sets an predetermined period of time in order to have the analog switch to select and output one of the first, and the second ~~and the third~~ scanned image signals in a sequential manner.

4. The method of claim 1, ~~wherein the interface is a USB interface~~ further comprising a step of providing a software for integrating the corresponding outputted image signals in correspondingly sequential document reading sessions together.

5. The method of claim 1, ~~further comprising a step of providing a timing generator for providing the start pulse to the first contact image sensor module.~~

6. The method of claim 1, wherein the first ~~and the second~~ contact image sensor module further outputs a first end pulse ~~and a second end pulse~~ to the second ~~and the third~~ contact image sensor module, ~~respectively~~, as the first ~~and the second~~ document reading sessions ~~are is~~ finished, for triggering an executions of the second ~~and the third~~ document reading sessions.

7. The method of claim 1, wherein the object has both sides, and the first contact image sensor module and the second contact image sensor module are disposed face to face to scan the both sides of the object simultaneously, and wherein the image of the object includes respective images of both sides of the object ~~further comprising a step of placing a first series of contact image sensor module and a second series of contact image sensor module disposed horizontally with respect to the first series of contact image sensor module, wherein the first and the second series of contact image sensor module are operated sequentially.~~

8. An optical scanner comprising:

 a concatenated contact image-sensing module having ~~a plurality of at least first and second~~ contact image sensor modules, each operatively connected to another in series; and

a timing generator, providing a clocking signal to each of the first and second contact image sensor modules, for providing a start pulse into ~~a the~~ first contact image sensor module to trigger a first document reading session thereof and output a first scanned image signal;

~~wherein the concatenated CIS Scanner further comprises a the second and a third contact image sensor modules is caused to perform for performing a second and a third document reading sessions, respectively, once triggered and outputting a second and a third-scanned image signals, wherein the first, and the second and the third-contact image sensor modules are triggered sequentially and the first and the second scanned image signals are selected to be outputted sequentially via an interface to a computing device that executes a software module to integrate the first and the second scanned image signals to recover an image of the object.~~

9. The optical scanner of claim 8, wherein the ~~CIS Scanner further includes a first series of first~~ contact image sensor module and ~~a the second series of~~ contact image sensor module ~~are~~ disposed horizontally oppositely with respect to each other ~~the first series of contact image sensor module~~, wherein ~~the contact image sensor module of the first and the second series of contact image sensor modules~~ are operated sequentially.

10. The optical scanner of claim 8, wherein the first and the second ~~series of~~ contact image sensor modules are operated sequentially.

11. The optical scanner of claim 8, further comprising at least one analog-to-digital converter for receiving the first; and the second ~~and the third~~-scanned image signals outputted from the first; and the second ~~and third~~-document reading sessions, respectively, and converting the first and; the second ~~and the third~~-scanned image signals into corresponding digitalized forms.

12. The optical scanner of claim 11, further comprising a digitalized image processor operatively connected to the analog-to-digital converter for receiving the first; and the second ~~and the third~~-scanned image signals in digitalized forms.

13. The optical scanner of claim 8, further comprising an analog switch operatively connected to the first ~~and~~, the second ~~and the third and more~~ contact image sensor modules, for receiving the first ~~and~~, the second ~~and the third and more~~ scanned image signals, and selecting and then outputting one of the first; ~~and the second and the third and more~~ scanned image signals ~~sequentially~~.

14. The optical scanner of claim 13, wherein the analog switch further includes an internal counter for setting a predetermined period of time, in order to select and then output one of the first; ~~and the second and the third and more~~ scanned image signals ~~sequentially~~ within the predetermined period of time duration.

15. The optical scanner of claim 8, wherein the first and the second contact image sensor modules output a first and a second end pulses to the second and ~~third a~~ subsequent contact image sensor modules, ~~respectively, if there is one,~~ in order to trigger the second and the subsequent ~~third and more~~ contact image sensor modules sequentially.

16. The optical scanner of claim 8, further comprising at least one interface for interfacing the optical scanner with at least one computer.

17. The optical scanner of claim 8, wherein the interface is an USB-based interface.

18. The optical scanner of claim 8 further comprising: ~~a-a light source of the concatenated contact image sensing module~~ to illuminate the object.

19. The optical scanner of claim 18, wherein the light source is a colorful or monochromatic visible light.

20. The optical scanner of claim 18, wherein the light source is an invisible light.

21. The optical scanner of claim 20, wherein the invisible light is an infrared (IR) or ultraviolet (UV) light.

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36. An optical scanner comprising:

a concatenated contact image-sensing module having a plurality of contact image sensor modules, each operatively connected to another in series; and

a timing generator for providing a start pulse into an end contact image sensor module to trigger a corresponding document reading session thereof and output a corresponding scanned image signal, wherein the end contact image sensor module is located at one end of the series-connected contact image sensor modules; wherein a portion of these CIS-contact image sensor modules is placed in a face-up manner and another portion is placed in a face-down manner; ~~thereby~~, the optical scanner being capable of scanning a double sided document.

37. (newly added) An optical scanner comprising:

a first contact image sensor module;

a second contact image sensor module operatively connected to the first contact image sensor module in series, wherein the first contact image sensor module is placed in a face-up manner and the second contact image sensor module is placed in a face-down manner so that a double sided object is scanned simultaneously by the first contact image sensor module and the second contact image sensor module, and wherein first scanned image signals from the first contact image sensor module and second scanned image signals from the second contact image sensor module are read out in sequence and integrated in a computing device executing a software module to recover two images of the double sided object.

38. The optical scanner of claim 37, further including:

at least one analog-to-digital converter for receiving the first and the second scanned image signals and converting the first and the second scanned image signals into corresponding digitalized forms.